

## **Amendments to the Specification:**

*Please insert the following subheadings on page 1, immediately following the title and prior to the first full paragraph, as shown below:*

### **BACKGROUND OF THE INVENTION**

#### **1. Field of the Invention**

*Please insert the following subheading on page 1, prior to the second full paragraph, as shown below:*

#### **2. Description of the Related Art**

*Please replace the fifth full paragraph on page 1, beginning at line 32, through page 2, line 4, as shown below:*

WO 01/98420 (Dow Corning Corp.) discloses a liquid silicone antimisting composition obtained by reacting

- (a) an organohydropolysiloxane containing at least 2 Si-H groups (SiH) with
- (b) an organoalkenylsiloxane containing at least ~~2~~ 3 alkenyl groups (C=C) in
- (c) the presence of a platinum catalyst and if desired of
- (d) an inhibitor.

*Please insert the following subheading on page 2, prior to the third full paragraph, as shown below:*

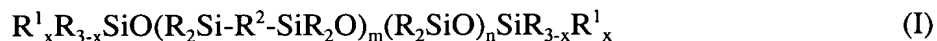
## SUMMARY OF THE INVENTION

*Please insert the following subheading on page 2, prior to the fourth full paragraph, as shown below:*

## DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

*Please replace the fourth full paragraph on page 2, beginning at line 26, through page 4, line 10, as shown below:*

The invention provides for the use of antimisting additives in crosslinkable silicone coating compositions for reducing the formation of aerosol, characterized in that use is made as antimisting additives of siloxane polymers containing branched alkenyl groups and preparable by reacting  $\alpha,\omega$ -dialkenylsiloxane polymers (1) of the general formula



where R denotes identical or different, unhalogenated or halogenated hydrocarbon radicals having from 1 to 18 carbon atoms per radical,

$\text{R}^1$  is a terminally aliphatically unsaturated organic radical having preferably from 2 to 10 carbon atoms, preferably a terminally aliphatically unsaturated hydrocarbon radical having 2 to 10 carbon atoms,

$\text{R}^2$  is a divalent organic radical, preferably an alkylene radical, having 2 to 30 carbon atoms per radical or a divalent silane or siloxane radical having 2 to 10 Si units,

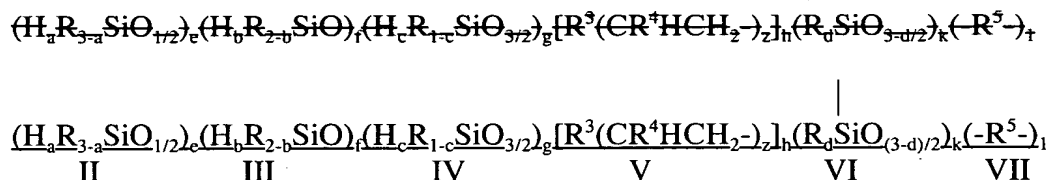
x can be identical or different and is 0 or 1, preferably 1, on average from 0.7 to 1.0, preferably on average 1.0,

m is 0 or an integer from 1 to 10, preferably 0,

and n is 0 or an integer from 1 to 1000,

preferably from 20 to 1000, more preferably from 50 to 500,

with organosilicon compounds (2) containing at least 3 Si-bonded hydrogen atoms per molecule and of the general formula



where R is as defined above,

R<sup>3</sup> is a trivalent to decavalent aliphatically saturated hydrocarbon radical having 1 to 20 carbon atoms, which may contain one or more heteroatoms selected from the group of oxygen, boron, silicon and titanium,

R<sup>4</sup> is a hydrogen atom or an alkyl radical having from 1 to 6 carbon atoms per radical,

R<sup>5</sup> is a divalent hydrocarbon radical having from 2 to 30 carbon atoms, which can be linear, branched or cyclic and may contain one or more separate oxygen atoms,

a is 0, 1, 2 or 3, preferably 0 or 1,

b is 0, 1 or 2, preferably 0 or 1,

c is 0 or 1, preferably 0,

d is 0, 1 or 2, preferably 0 or 1,

z is an integer from 3 to 10, preferably 3 or 4, more preferably 3,

e, f, g, h, k and l are each 0 or a positive integer, preferably 0 or an integer from 1 to 40,

with the proviso that if h and k are each a positive integer and l is 0, the structural elements V are bonded exclusively to the structural elements VI, and

that if h is 0 and k and l are each a positive integer, the structural elements VII are bonded to the structural elements VI,

in the presence of catalysts (3) which promote the addition of Si-bonded hydrogen onto aliphatic double bond.

*Please replace the third full paragraph on page 4, beginning at line 31, as shown below:*

The alkenyl-functional siloxane copolymers of the invention preferably possess a viscosity of from 0.05 to ~~500-000 Pa·s~~ 500,000 Pa·s at 25°C, more preferably from 0.1 to ~~100-000 Pa·s~~ 100,000 Pa·s at 25°C, with particular preference from 0.2 to ~~10-000 Pa·s~~ 10,000 Pa·s at 25°C.

*Please replace the first full paragraph on page 7, beginning at line 1, as shown below:*

The  $\alpha,\omega$ -dialkenylsiloxane polymers (1) preferably possess a viscosity of ~~form~~ from 20 to ~~20-000 mPa·s~~ 20,000 mPa·s at 25°C, preferably from 50 to 1000 ~~mPa·s~~ mPa·s at 25°C.

*Please replace the third full paragraph on page 11, beginning at line 11, as shown below:*

The organosilicon compounds (2) preferably possess an average viscosity of from 20 to ~~20-000 mPa·s~~ 20,000 mPa·s at 25°C, more preferably from 100 to ~~10-000 mPa·s~~ 10,000 mPa·s at 25°C.

*Please replace the third full paragraph on page 12, beginning at line 22, through page 13, line 11, as shown below:*

As catalysts (3) which promote the addition of Si-bonded hydrogen onto aliphatic double bond it is possible in the process of the invention as well to use the same catalysts which it has also been possible to date to use for promoting the addition of Si-bonded hydrogen onto aliphatic double bond. The catalysts (3) are preferably a metal from the group of the platinum metals or a compound or a complex from the group of the platinum metals. Examples of such catalysts are metallic and finely divided platinum, which may be on supports,

such as silica, alumina or activated carbon, compounds or complexes of platinum, such as platinum halides, e.g.,  $\text{PtCl}_4$ ,  $\text{H}_2\text{PtCl}_6 \cdot 6\text{H}_2\text{O}$ ,  $\text{H}_2\text{PtCl}_6 \cdot 6\text{H}_2\text{O}$ ,  $\text{Na}_2\text{PtCl}_6 \cdot 4\text{H}_2\text{O}$ ,  $\text{Na}_2\text{PtCl}_6 \cdot 4\text{H}_2\text{O}$ , platinum-olefin complexes, platinum-alcohol complexes, platinum-alkoxide complexes, platinum-ether complexes, platinum-aldehyde complexes, platinum-ketone complexes, including reaction products of  $\text{H}_2\text{PtCl}_6 \cdot 6\text{H}_2\text{O}$ ,  $\text{H}_2\text{PtCl}_6 \cdot 6\text{H}_2\text{O}$  and cyclohexanone, platinum-vinylsiloxane complexes, such as platinum-1,3-divinyl-1,1,3,3-tetramethyldisiloxane complexes with or without a detectable inorganically bonded halogen content, bis(gamma-picoline)platinum dichloride, trimethylenedipyridineplatinum dichloride, dicyclopentadieneplatinum dichloride, dimethyl-sulfoxide-ethyleneplatinum(II) dichloride, cyclooctadieneplatinum dichloride, norbornadieneplatinum dichloride, gamma-picolineplatinum dichloride, cyclopentadieneplatinum dichloride.

*Please replace the first full paragraph on page 15, beginning at line 10, as shown below:*

The invention further provides crosslinkable silicone coating ~~composition~~ compositions featuring reduced aerosol formation, comprising

- (X) antimisting additives of the invention,
  - (A) organosilicon compounds having radicals containing aliphatic carbon-carbon multiple bonds,
  - (B) organosilicon compounds containing Si-bonded hydrogen atoms,
  - (C) catalysts which promote the addition of Si-bonded hydrogen onto aliphatic multiple bond,
- and if desired
- (D) inhibitors.

*Please replace the second full paragraph on page 16, beginning at line 12, as shown below:*

Preferred organosilicon compounds (A) are organopolysiloxanes of the general formula



where  $[[R^5]]$   $R^6$  and  $[[R^6]]$   $R^7$  are as defined above,

u is 0, 1 or 2,

v is 0 or an integer from 1 to 1500, and

w is 0 or an integer from 1 to 200,

with the proviso that on average at least 1.5 radicals  $R^7$ , preferably on average at least 2 radicals  $R^7$ , are present.

*Please replace the second full paragraph on page 17, beginning at line 17, as shown below:*

The organopolysiloxanes (A) preferably possess an average viscosity of from 100 to ~~10,000 mPa·s~~ 10,000 mPa·s at 25°C.

*Please replace the Example 2 paragraph on page 27, beginning at line 1, as shown below:*

## Example 2

In deviation from Example 1 a branched siloxane polymer with longer arm segments is prepared, by using, instead of the  $\alpha,\omega$ -divinylpolydimethylsiloxane with an iodine number of 4.2, a longer  $\alpha,\omega$ -divinylpolydimethylsiloxane having an iodine number of 1.43. The amount of the copolymer containing 0.72% by weight of Si-bonded hydrogen is reduced to 0.12 g (C=C/SiH = 16). Following identical catalysis (as described in Example 1) with an analogous reaction course, a colorless, clear product is obtained, of ~~14,400~~ 14,400 mm<sup>2</sup>/s at 25°C and a vinyl equivalent weight of ~~18,960~~ 18,960 g/mol C=C.

*Please replace the Example 5 paragraph on page 28, beginning at line 21, as shown below:*

#### Example 5

Highly branched siloxane polymers are also obtainable by using hydrosiloxanes which already contain branching, in combination with linear vinyl polymers: reacting, therefore, as in Example 1, 244 g of a linear  $\alpha,\omega$ -divinylpolydimethylsiloxane having an iodine number of 4.2 with ~~0.46~~ 0.46 g of a branched siloxane whose preparation was described in US 5,866,707 in Example 1 and which contains exclusively  $\text{HMe}_2\text{SiO}_{1/2}$  groups instead of  $\text{HMeSiO}$  groups (Me = methyl radical) and also possesses a viscosity of 47  $\text{mm}^2/\text{s}$  at 25°C and an Si-bonded hydrogen content of 0.87% by weight ( $\text{C}=\text{C}/\text{SiH} = 10$ ), the product, after full conversion of the Si-bonded hydrogen atoms, is a clear oil having a viscosity of 970  $\text{mm}^2/\text{s}$  (25°C) with a vinyl equivalent weight of 6780 g/mol  $\text{C}=\text{C}$ .

*Please replace the Table 1, on page 32, as follows:*

Table 1:

Additive	Amount of additive in %	Misting, $\text{mg}/\text{m}^3$ (Dusttrak)
Example 2	10	7
Example 4	20	7
Example 6	10	1.5
Example 7	6	4.5
[[ - ]]	-	20
<u>Comparison</u>		

*Please replace the third full paragraph on page 33, beginning at line 26, as shown below:*

The formation of aerosol was determined using the Dusttrak Aerosol Monitor Model 8520. Samples were taken between the silicone application roll and the roll nip at a distance of 40 cm from the silicone application roll. The blank aerosol value prior to the coating tests was ~~40~~ 0.04 mg/m<sup>3</sup>. During the coating tests, the minimum and maximum indicated aerosol levels were recorded and the average was calculated. The average aerosol levels measured during the coating tests were corrected by the blank value of 0.04 mg/m<sup>3</sup> in order to determine the effect due purely to the antimisting additives of the invention.

*Please replace the fifth full paragraph on page 34, beginning at line 21, as shown below:*

The release values were determined in accordance with FINAT Test Method No. 10. The parameter determined was the low speed release value after 3 days. This was done using commercial self-adhesive tapes 2.5 cm wide, of the designations "Tesafilm K-7476" and "Tesafilm A 7475" (each available commercially from Beiersdorf AG, Hamburg, ~~Germany~~) Germany). FINAT Test Method No. 10 is described in FINAT Technical Handbook 5th edition, 1999, pages 25 to 29.

*Please replace the Table 2, on page 35, as follows:*

Table 2:

Additive	Amount [%]	Misting [mg/m <sup>3</sup> ] average	Av. misting [mg/m <sup>3</sup> ] standardized to 1.0 g/m <sup>2</sup>	Extract [%]			Release value [cN/cm]	
				Migration	Ruboff	in MIBK	A7475	K7476
Ex. 7	3.0	1.05	0.55	no	no	3.25	14.6	22.3
[[ - ]]								
<u>Comparison</u>	-	73.0	38.0	no	no	3.05	14.8	23.2